

PCT09

#13

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/744,794B

DATE: 03/19/2003 TIME: 14:37:46

Input Set : A:\pf0565usn_seqlist.txt Output Set: N:\CRF4\03192003\1744794B.raw

1 <110> APPLICANT: INYCTE PHARMACEUTICALS, INC.; HILLMAN, Jennifer L. LAL, Preeti; TANG, Y. Tom 3 CORLEY, Neil C.; GUEGLER, Karl J. 4 BAUGHN, Mariah R.; PATTERSON, Chandra 5 BANDMAN, Olga; AU-YOUNG, Janice GORGONE, Gina A.; YUE, Henry 7 AZIMZAI, Yalda; REDDY, Roopa LU, Dyung Aina M.; SHIH, Leo L. 10 <120> TITLE OF INVENTION: PHOSPHORYLATION EFFECTORS 12 <130> FILE REFERENCE: PF-0565 USN 14 <140> CURRENT APPLICATION NUMBER: US 09/744,794B C--> 15 <141> CURRENT FILING DATE: 8200-01-26 17 <150> PRIOR APPLICATION NUMBER: US 99/17132 18 <151> PRIOR FILING DATE: 1999-07-28 20 <150> PRIOR APPLICATION NUMBER: US 60/155,233 21 <151> PRIOR FILING DATE: 1999-01-12 23 <150> PRIOR APPLICATION NUMBER: US 60/113,796 24 <151> PRIOR FILING DATE: 1998-12-22 26 <150> PRIOR APPLICATION NUMBER: US 60/109,093 ENTERED 27 <151> PRIOR FILING DATE: 1998-11-19 29 <150> PRIOR APPLICATION NUMBER: US 60/106,889 30 <151> PRIOR FILING DATE: 1998-11-03 32 <160> NUMBER OF SEQ ID NOS: 61 33 <170> SOFTWARE: PERL Program 35 <210> SEQ ID NO: 1 36 <211> LENGTH: 300 37 <212> TYPE: PRT 38 <213> ORGANISM: Homo sapiens 40 <220> FEATURE: 41 <221> NAME/KEY: misc_feature 42 <223> OTHER INFORMATION: Incyte ID No: 132240 44 <400> SEQUENCE: 1 45 Met Glu Ser Pro Leu Glu Ser Gln Pro Leu Asp Ser Asp Arg Ser 46 5 10

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49 Ile Val Thr Pro Asp Cys Gln Glu Lys Thr Ser Pro Lys Gly Val

51 Glu Asn Pro Ala Val Gln Glu Ser Asn Gln Lys Met Leu Gly Pro

53 Pro Leu Glu Val Leu Lys Thr Leu Ala Ser Lys Arg Asn Ala Val

55 Ala Phe Arg Ser Phe Asn Ser His Ile Asn Ala Ser Asn Asn Ser

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57	Glu	Pro	Ser	Arg	Met	Asn	Met	Thr	Ser	Leu	Asp	Ala	Met	Asp	Ile
58					95					100					105
59	Ser	Cys	Ala	Tyr	Ser	Gly	Ser	Tyr	Pro	Met	Ala	Ile	Thr	Pro	Thr
60					110					115					120
61	Gln	Lys	Arg	Arg	Ser	Cys	Met	Pro	His	Gln	Thr	Pro	Asn	Gln	Ile
62					125					130					135
63	Lys	Ser	Gly	Thr	Pro	Tyr	Arg	Thr	Pro	Lys	Ser	Val	Arg	Arg	Gly
64					140					145					150
65	Val	Ala	Pro	Val	Asp	Asp	Gly	Arg	Ile	Leu	Gly	Thr	Pro	Asp	Tyr
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67	Leu	Ala	Pro	Glu	Leu	Leu	Leu	Gly	Arg	Ala	His	Gly	Pro	Ala	Val
68					170					175					180
69	Asp	Trp	Trp	Ala	Leu	Gly	Val	Cys	Leu	Phe	Glu	Phe	Leu	Thr	Gly
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71	Ile	Pro	Pro	Phe	Asn	Asp	Glu	Thr	Pro	Gln	Gln	Val	Phe	Gln	Asn
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83	Ala	Arg	Asn	Thr	Ala	Gln	His	Leu	Thr		Ser	Gly	Phe	Ser	
84					290					295					300
)> SE													
88		L> LE			17										
89		2> TY													
90					Homo	sap	oiens	5							
92)> FE				_									
93							ture				100				
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)> SE				.	a 1		•	**- 1	Ŧ			т	a1
97		Ala	Ala	GIn		Leu	GIY	Lys	Arg		Leu	ser	Lys	Leu	
98	1	D	Q	3	5	3	G1	D	C1	10	Com	Dwo	c1	C1	15 Mat
		Pro	ser	Arg			СТУ	Pro	GTÀ			Pro	СТА	GIY	
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102		. Cl-	7.20	. Arc			. 1/2.1	C1.	Tuc) Agr	. Cl.	, Arc	
		i GII	HIG	ALG	лес 50		, vai	. GIU	. Буа	5.5 5.5		. ASF	, сту	ATC	J Leu 60
104		. <i>C</i> 1:	ı Lev	1 TP 177			, Mot	Glu	Δla			· Dro) Der	C1.	
106		. 916	, пес	, тут	65	•	ret	. GIU	LAIG	70		. FIC	, ust	, 616	75
107		Tle	Δer	. Glu			- Glu	ı Len	Glu			ı Glu	ı Gle	Arc	ser
108				. 016	80		· OIC	. шеи	. 010	85		. 010	. 010	9	90
100	,				00	•				0.	•				70

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111 Asp Phe I le Gln Glu Leu Leu Ala Lys Leu Gln Gly Leu His Arg 112		Arg	Lys	Ile	Gln	_	Leu	Leu	Lys	Ser	_	Gly	Lys	Pro	Val	
112		λan	Dho	Tla	Gln		LOU	Lau	λla	Luc		Gln	Clv	LOU	Пic	
114		кър	rne	116	GIII		Leu	пец	ліа	цуз		GIII	GIY	Leu	1113	120
115 Ser Pro Leu Gln Asp Arg Ala Arg Thr Ala His Pro 116	113	Gln	Pro	Gly	Leu	Arg	Gln	Pro	Ser	Pro	Ser	His	Asp	Gly	Ser	Leu
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119	116					140					145					
120	118	.18 <210> SEQ ID NO: 3														
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123	120															
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125																
127		,														
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131		_	_			-		- 1	_	-1		_	_	~ 1	_	
132 Gly Lys Gly Ser Phe Gly Glu Val Phe Lys Gly Ile Asp Asn Arg 133		Leu	Lys	Ala	Asp		Glu	GLu	Leu	Phe		Lys	Leu	Glu	Lys	
133		- 1	_	a 1	~		a 3	a 3	1	5 1		a.)	- 1	_	_	
134 Thr Gln Lys Val Ala Ile Lys Ile Asp Leu Glu Ala Asp Ile Ile Glu Asp Glu Ile Glu Asp Ile Glu Asp Ile Glu Asp Ile Glu Asp Ile Asp Ile Glu Asp Ile Tyr Ile Ile <td></td> <td>GTY</td> <td>Lys</td> <td>GIY</td> <td>Ser</td> <td></td> <td>GIY</td> <td>Glu</td> <td>vaı</td> <td>Pne</td> <td>-</td> <td>GIY</td> <td>шe</td> <td>Asp</td> <td>Asn</td> <td></td>		GTY	Lys	GIY	Ser		GIY	Glu	vaı	Pne	-	GIY	шe	Asp	Asn	
135 136 137 138		m1	01-	T	17- 1		3 1 -	T1-	T	т1.		3	T	a1	a1	
136 Glu Asp Glu Ile Glu Asp Ile Glu Glu Ile Thr Val Leu Ser 70 75 75 138 Gln Cys Asp Ser Pro Tyr Val Thr Lys Tyr Tyr Leu Asp 100<		Tnr	GIN	ьуs	val		Ala	шe	rys	11e		Asp	Leu	GIU	GIU	
137		a 1	1	<i>α</i> 1	т1.		7	T1 -	a 1	<i>a</i> 1		т1.	m b so	17 a 1	T ~	
138 Gln Cys Asp Ser Pro Tyr Val Thr Lys Tyr Tyr Gly Ser Tyr Leu 80		GIU	Asp	GIU	rre		Asp	ше	GIII	GIII		rre	THE	vaı	Leu	
139		Cln	Cuc	λcn	Cor		Тих	Wal	Thr	Lvc		marr.	C1m	Cor	m tare	
140 Lys Asp Thr Lys Leu Trp Ile Ile Met Glu Tyr Leu Gly Gly 105 142 Ser Ala Leu Asp Leu Glu Pro Gly Arg Leu Asp Glu Thr Gln 143 Ile Ala Ala Ile Leu Arg Glu Ile Leu Lys Gly Leu Asp Tyr Leu 144 Ile Ala Thr Ile Leu Arg Glu Ile Leu Lys Gly Leu Asp Tyr Leu 145 Ile Ala A		GIII	Cys	АБР	ser		тут	val	1111	гуу		тут	GIY	ser	1 7 1	
141 """ """ """ """ """ """ """ """ """ ""		Lvc	Δsn	Thr	Lvs		Trn	Tle	Tle	Met		Tur	T.eu	Glv	Glv	
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143 Ile Ala Thr Ile Leu Arg Glu Ile Leu Lys Gly Leu Asp Tyr Leu 144 Ile Ala Thr Ile Leu Arg Asp Ile Lys Gly Leu Asp Tyr Leu 146 His Ser Glu Lys Ile His Arg Asp Ile Lys Ala Ala Ala Asp Val 147 Ile I		Ser	Ala	Leu	Asp	_	Len	Glu	Pro	Glv		Len	Asp	Glu	Thr	
144 Ile Ala Thr Ile Leu Arg Glu Ile Leu Lys Gly Leu Asp Tyr Leu 145 Iss I		001			112					1			[
145 125 130 131 135 135 146 146 148 149 149 149 140 140 140 145 145 145 140 150 145 145 140 150 145 145 145 150 145 150 145 150 145 150 145 150 145 150 145 145 150 150 140 150 145 145 145 150 150 145 150 145 150 150 145 150 145 150 145 150 145 150 150 160 160 160 160 165 165 165 165 165 165 165 165 165 165 165 165 165 165 165 175 175 175 180 180 160 160 175 180 160 160 160 160 160 160 160 160 160 160 160 160 160 160 160 1		Ile	Ala	Thr	Ile		Ara	Glu	Ile	Leu	Lvs	Glv	Leu	Asp	Tvr	
147 Image: color of the							5				_	1			- 1 -	
147 Image: color of the	146	His	Ser	Glu	Lys	Lys	Ile	His	Arg	Asp	Ile	Lys	Ala	Ala	Asn	Val
149					_	_			,	-		_				
150 Ala Gly Gln Leu Thr Asp Thr Gln Ile Lys Arg Asn Thr Phe Val 151 - 170 - 170 - 175 - 175 - 180 152 Gly Thr Pro Phe Trp Met Ala Pro Glu Val Ile Lys Gln Ser Ala 153 - 185 -	148	Leu	Leu	Ser	Glu	His	Gly	Glu	Val	Lys	Leu	Ala	Asp	Phe	Gly	Val
151							•			•			-		•	
151	150	Ala	Gly	Gln	Leu	Thr	Asp	Thr	Gln	Ile	Lys	Arg	Asn	Thr	Phe	Val
153 195 196 197 198 198 198 198 199	151		_			170	_				175	_				180
154 Tyr Asp Ser Lys Ala Asp Ile Trp Ser Leu Gly Thr Ala Ile 155 Image: Control of the contr	152	Gly	Thr	Pro	Phe	Trp	Met	Ala	Pro	Glu	Val	Ile	Lys	Gln	Ser	Ala
155 200 205 210 156 Glu Leu Ala Arg Gly Glu Pro Pro His Ser Glu Leu His Pro Met 220 225 157 215 220 225 158 Lys Val Leu Phe Leu Ile Pro Lys Asn Asn Pro Pro Thr Leu Glu 230 235	153	_				185					190					195
156 Glu Leu Ala Arg Gly Glu Pro Pro His Ser Glu Leu His Pro Met 157	154	Tyr	Asp	Ser	Lys	Ala	Asp	Ile	Trp	Ser	Leu	Gly	Ile	Thr	Ala	Ile
157 215 220 225 158 Lys Val Leu Phe Leu Ile Pro Lys Asn Asn Pro Pro Thr Leu Glu 159 230 235 240	155					200					205					210
158 Lys Val Leu Phe Leu Ile Pro Lys Asn Asn Pro Pro Thr Leu Glu 159 230 235 240	156	Glu	Leu	Ala	Arg	Gly	Glu	Pro	Pro	His	Ser	Glu	Leu	His	Pro	Met
159 230 235 240	157					215					220					225
	158	Lys	Val	Leu	Phe	Leu	Ile	Pro	Lys	Asn	Asn	Pro	Pro	Thr	Leu	Glu
160 Cly Non Turn Con Iva Dro Iou Iva Clu Dho Wal Clu Nia Cua Iou	159					230					235					240
160 Gly Asn Tyr Ser Lys Pro Leu Lys Glu Phe Val Glu Ala Cys Leu	160	Gly	Asn	Tyr	Ser	Lys	Pro	Leu	Lys	Glu	Phe	Val	Glu	Ala	Cys	Leu

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161	1	T	<i>C</i> 1	D == 0	245	Dha	7	Dro	mb∽	250	Ť v.a	clu	Lou	Lou	255 Lug
	Asn	ьуs	GIU	Pro		Pne	Arg	PIO	1111	265	LyS	GIU	ьеи	Leu	
163	*** -	Τ	Dha	тіс	260	7	7	7 l a	T a		mb ~	Con	Tres	Lou	270
	His	ьуѕ	Pne	rre	275	Arg	ASII	Ald	ьуѕ	280	1111	ser	тут	ьeu	285
165	a1	T	т1.	7 ~ ~		m	T	7	TT 2020		7 l a	C1	Cln	Con	
	Glu	Leu	тте	ASP		TÀT	гуѕ	AIG	пр		Ald	GIU	GIII	ser	
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	Ala	Ser	GIA	GIY		Asp	ser	GTA	Asp		тте	Pne	Thr	rre	
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	Glu	Lys	Asp	Pro		Asn	Leu	GIU	ASN		Ala	Leu	GIII	Pro	
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	Asp	Leu	Asp	arg		Lys	мес	гуѕ	ASP		PLO	Lys	Arg	PLO	
175	a	<i>a</i> 1	a .	-	350	m 1	T1 -	T 1 -	G	355	T	Db.	7 .1	a1	360
	Ser	GIN	Cys	Leu		Thr	me	11e	ser		Leu	Pne	Ата	GIU	
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179	- 1	_	_	~ 1	380	- 1		. .	3.1 -	385	a 1	3.1-	G	D	390
	Glu	Leu	Arg	Gly		TTE	Tyr	Leu	Ата		GIU	Ата	Cys	Pro	
181	- 1	_	_	1	395		2.1	a1 .	.	400	a1		T	a1	405
	Ile	Ser	Asp	Thr		vaı	Ата	GIn	Leu		GIn	Arg	Leu	GIN	
183	_	_	_	_	410	- 1	a 1	- 1		415	** *				420
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196 197 198 199 200 201 202 203 204 205 206 207 208 209	<223 <400 Met 1 Gln His Ser	l> NA 3> Of 3> Of Asn Val Arg Ile Phe Arg	AME/I IHER IHER EQUEN Cys Glu Ser Gly Thr	KEY: INFO NCE: Arg Glu Thr Thr Tyr Val	Ser 5 Ala 20 Gly 35 Val 65 Val 80 Leu	Glu Met Lys Gly Arg	Val Leu Phe Thr Val	Leu Ala His Gln Ser	Glu Val Tyr Asp Ser Lys	Val 10 Leu 25 Lys 40 Val 55 Glu 70 Asp 85 Leu	Ser His Lys Asp Glu Ala	Val Thr Glu Cys Leu Leu	Val Gly Asp Asp	Leu Thr Phe Arg Asn	15 Leu 30 Tyr 45 Ile 60 Ala 75 Ser 90 Lys
196 197 198 199 200 201 202 203 204 205 206 207 208 209 210	<223 <400 Met 1 Gln His Ser Asp Leu Gly	l> NA 3> Of 3> Of Asn Val Arg Ile Phe Arg	AME/I IHER IHER EQUEN Cys Glu Ser Gly Thr Lys Asp	KEY: INFO NCE: Arg Glu Thr Thr Tyr Val Gly	Ser 5 Ala 20 Gly 35 Val 50 Val 65 Val 80 Leu	Glu Met Lys Gly Arg Gly Gly	Val Leu Phe Thr Val Glu Gln	Leu Ala His Gln Ser Phe Met	Glu Val Tyr Asp Ser Lys	Val 10 Leu 25 Lys 40 Val 55 Glu 70 Asp 85 Leu 100	Ser His Lys Asp Glu Ala Glu	Val Thr Glu Cys Leu Leu	Val Gly Asp Asp Arg	Leu Thr Phe Arg Asn Gln	15 Leu 30 Tyr 45 Ile 60 Ala 75 Ser 90 Lys 105
196 197 198 199 200 201 202 203 204 205 206 207 208 209 210	<223 <400 Met 1 Gln His Ser Asp	l> NA 3> Of 3> Of Asn Val Arg Ile Phe Arg	AME/I IHER IHER EQUEN Cys Glu Ser Gly Thr Lys Asp	KEY: INFO NCE: Arg Glu Thr Thr Tyr Val Gly	Ser 5 Ala 20 Gly 35 Val 50 Val 65 Val 80 Leu	Glu Met Lys Gly Arg Gly Gly	Val Leu Phe Thr Val Glu Gln	Leu Ala His Gln Ser Phe Met	Glu Val Tyr Asp Ser Lys	Val 10 Leu 25 Lys 40 Val 55 Glu 70 Asp 85 Leu 100	Ser His Lys Asp Glu Ala Glu	Val Thr Glu Cys Leu Leu	Val Gly Asp Asp Arg	Leu Thr Phe Arg Asn Gln	15 Leu 30 Tyr 45 Ile 60 Ala 75 Ser 90 Lys 105

RAW SEQUENCE LISTINGPATENT APPLICATION: US/09/744,794B

DATE: 03/19/2003
TIME: 14:37:46

Input Set : A:\pf0565usn_seqlist.txt
Output Set: N:\CRF4\03192003\I744794B.raw

213	Val	Trp	Thr	Val	Lys	Val	His	Val	Val	Ala	Leu	Ala	Thr	Glu	Gln
214					125					130					135
215	Glu	Arg	Gln	He	Cys	Arg	Glu	Lys	Val	Gly	Glu	Lys	Leu	Cys	Glu
216		_			140	_		_		145		_		_	150
	Lvs	Tle	Ile	Asn	Ile	Val	Glu	Val	Met	Asn	Ara	His	Glu	Tvr	Leu
218					155					160	,			-	165
	Pro	Lvs	Met	Pro		G1n	Ser	Glu	Va l	Asp	Agn	Va 1	Phe	Asp	
220	110	LID	1100		170	0111	501	014		175		,			180
	Gly	T QU	Δησ	Men		Gln	Pro	Tur	T.211	Tyr	Lve	Tle	Ser	Phe	
222	Gry	Leu	Ary	кэр	185	GIII	FIO	1 7 1	пец	190	БУЗ	110	Der	rne	195
	т1а	Th.	Nan	A] a		C1.,	Thr	Cor	Wa 1	Thr	mb ×	Thr	Mot	7 200	
	iie	1111	ASP	на		GIY	1111	ser	vaı		1111	1111	Mec	AIG	
224	-	+ 1	-		200	.		T		205					210
	Leu	me	Lys	Asp		Leu	Ala	Leu							
226					215										
		0> SI													
		1> LI			/ 4										
		2> T													
231	<213	3> OI	RGAN:	ISM:	Home	o sap	pien	S							
		0> F1													
234	<221	1 > N	AME/I	KEY:	mis	c_fea	ature	9							
235	<22	3> O	THER	INF	ORMA!	TION	: Ind	cyte	ID I	No:	15138	371			
237	< 400)> SI	EQUE	NCE:	5										
238	Met	Ile	Met	Asn	Lys	Met	Lys	Asn	Phe	Lys	Arg	Arg	Phe	Ser	Leu
239	1				5					10					15
240	Ser	Val	Pro	Arg	Thr	Glu	Thr	Ile	Glu	Glu	Ser	Leu	Ala	Glu	Phe
241				_	20					25					30
242	Thr	Glu	Gln	Phe	Asn	Gln	Leu	His	Asn	Arg	Arq	Asn	Glu	Asn	Leu
243					35					40	-				45
244	Gln	Leu	Gly	Pro	Leu	Gly	Arg	Asp	Pro	Pro	Gln	Glu	Cys	Ser	Thr
245			•		50	_	,	-		55			-		60
	Phe	Ser	Pro	Thr	Asp	Ser	Glv	Glu	Glu	Pro	Glv	Gln	Leu	Ser	Pro
247	-		-		65		_			70	1				75
	Glv	Val	Gln	Phe		Arσ	Ara	Gln	Asn	Gln	Ara	Ara	Phe	Ser	
249	011	, 41	0		80		9	J		85	9	9		-	90
	Gln	Asp	Va 1	Ser		Ara	Len	Ser	Len	Pro	Met	Asp	Tle	Ara	
251	014	'''DP	, 41	501	95	**** 9	D.C.	001	Dea	100			110		105
	Pro	Gln	Glu	Dhe		Gln	Lve	T.e.11	Gln	Met	Glu	Ser	Pro	Asn	
253	110	GIII	Olu	THE	110	OIII	цуз	пса	OIII	115	Olu	OCI	110	nop	120
	Dro	Lvc	Dro	Lou		λκα	Mot	Sor	Λra	Arg	λla	Sor	Lan	Sar	
255	FIO	цуз								130		261	пец	361	135
	т1.	C1								Val		T 011	Nan	Tara	
	т те	СТА	Pile	СТУ		Leu	GIU	TIIT	тут		гуѕ	Leu	ASP	гуѕ	
257	C1	C1	C1	m k	140	л 7 ~	m L ~	17~ 7	nh a	145	C1	7 m~	C ~ ~	T	150
	стλ	GIU	стА	THE		Alg	ınr	vdl	rne	Lys	дТΆ	Arg	ser	ьуѕ	
259	on 1	a 1	_	_	155			Ţ	a 2	160			a.1		165
	Thr	GLu	Asn	Leu		Ala	Leu	Lys	Glu	Ile	Arg	Leu	GTU	HIS	
261					170					175		_	_		180
	Glu	GTA	Ala	Pro		Thr	Ala	He	Arg	Glu	Val	Ser	Leu	Leu	
263					185					190					195
264	Asn	Leu	Lys	His	Ala	Asn	Ile	Val	Thr	Leu	His	Asp	Leu	Ile	His

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/744,794B

DATE: 03/19/2003 TIME: 14:37:47

Input Set : A:\pf0565usn_seqlist.txt

Output Set: N:\CRF4\03192003\I744794B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the $\langle 220 \rangle$ to $\langle 223 \rangle$ fields of each sequence which presents at least one n or Xaa.

Seq#:33; N Pos. 2548,2557,2645,2722,2757,2762,2765